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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/678,025 | 10/04/2000 | Toru Koizumi | 35.C14850 | 5647 |
| 5514 | 7590 | 05/05/2004 | EXAMINER | |
| FITZPATRICK CELLA HARPER & SCINTO | | | KAO, CHIH CHENG G | |
| 30 ROCKEFELLER PLAZA | | | ART UNIT | |
| NEW YORK, NY 10112 | | | PAPER NUMBER | |
| | | | 2882 | |

DATE MAILED: 05/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

09/678,025

Applicant(s)

KOIZUMI, TORU

Examin r

Chih-Cheng Glen Kao

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-- The MAILING DATE of this communication appears n the c ver sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disp sition of Claims

- 4) ☒ Claim(s) 2 and 9-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2 and 9-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 February 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 2 is objected to because of the following informality, which appears to be a minor draft error creating lack of antecedent basis problems: (claim 2, lines 13-14, “the three functions”). This objection may be obviated by deleting “the” in the above-recited phrase. For purposes of examination, the claim has been treated as such. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 2, 9, 10, 13, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Takahashi (US Patent 5955753).

3. Regarding claim 2, Takahashi discloses a solid-state image pickup device (Fig. 1) comprising at least one unit cell having a photoelectric conversion portion (Fig. 1, #1), an amplifying means (Fig. 1, #5), a transfer means (Fig. 1, #3), a reset means (Fig. 1, #4), and a selecting means (Fig. 1, #6) for selecting said amplifying means and outputting an amplified signal to a signal output line (Fig. 1, line from #6 to #7), wherein the signal output line and a line (Fig. 1, #4 and ϕR_0) having at least one function of three functions of a selection control line for

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controlling said selecting means, a transfer control line for controlling said transfer means, and a reset control line for controlling said reset means, comprise a single common line in a single unit cell or between two adjoining cells.

4. Regarding claim 9, Takahashi further discloses a noise and optical signal read out (col. 4, line 67) when selecting means are turned on.

5. Regarding claim 10, Takahashi further discloses unit cells arranged in a two-dimensional matrix (Fig. 1).

6. Regarding claim 13, Takahashi further discloses wherein the photoelectric conversion portion, amplifying means, transfer means, reset means, and selecting means are all of the same conductivity type (Fig. 1).

7. Regarding claim 15, Takahashi further discloses each unit cell comprising a plurality of photoelectric conversions portions (Fig. 2) connected to a common amplifying transistor (Fig. 2, #5).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi as applied to claim 2 above, and further in view of Yonemoto (US Patent 5894325).

9. Regarding claim 11, Takahashi discloses a device as recited above.

However, Takahashi does not disclose a power line between two unit cells.

Yonemoto teaches a power line between two unit cells (Fig. 1, #14).

It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to modify the device of Takahashi with the power line of Yonemoto, since one would be motivated to incorporate it to power all cells from just one source for more compactness (Fig. 1) as implied from Yonemoto.

10. Regarding claim 12, Takahashi discloses a device as recited above.

However, Takahashi does not disclose an image pickup system comprising a pickup device, optical system, and signal processing circuit.

Yonemoto teaches an image pickup system (Fig. 9) comprising a pickup device (Fig. 9, #91), an optical system (Fig. 9, #92), and a signal processing circuit (Fig. 9, #97).

It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to modify the device of Takahashi with the image pickup system of Yonemoto, since one would be motivated to incorporate this to better capture signals in a video (col. 8, lines 40-41) as implied from Yonemoto.

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11. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi as applied to claim 2 above, and further in view of Gowda et al. (US Patent 5898168).

Takahashi discloses a device as recited above.

However, Takahashi does not disclose a common line functioning as a selection and transfer control line.

Gowda et al. teaches a common line functioning as a selection and transfer control line (Fig. 3B, #22 and RSL_i, and col. 4, lines 20-28).

It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to modify the device of Takahashi with the common line functioning as a selection and transfer control line of Gowda et al., since one would be motivated to incorporate this to eliminate the separate selection line as implied from Gowda et al. (col. 4, lines 20-28).

Response to Arguments

12. Objections to the claims in the Office Action dated 6/9/03 have been withdrawn in light of the amendment dated 9/9/03.

13. Applicant's arguments with respect to claims 2 and 9-15 have been considered but are moot in view of the new ground(s) of rejection.

Yonemoto still applies for its teachings of a power line and image pickup system as recited above.

Regarding Gowda et al., the common line (Fig. 3B, #22 and RSL) does function as a selection control line (Fig. 3B, "Row Select") and a transfer control line (col. 4, lines 20-28).

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Referring to Figure 5, see the time period after #47 between t_3 and t_4 . As "Row Select" is turned on, the transistor also turns on the transferring means to transfer the signal from the photodiode to the output.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chih-Cheng Glen Kao whose telephone number is (571) 272-2492. The examiner can normally be reached on M - F (9 am to 5 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on (571) 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



gk



EDWARD J. GLICK
SUPERVISORY PATENT EXAMINER